Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte DONALD P. KING
and
NORMAN L. HOLY

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Appeal No. 2001-2559
Application No. 09/276,722

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HEARD: JANUARY 22, 2002

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Before COHEN, STAAB, and NASE, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 13-15, 17, 18 and 21 as amended by an amendment filed subsequent to the final rejection. Claims 19, 20, 22 and 23 have been withdrawn from consideration pursuant to 37 CFR § 1.142(b) as not being readable on the elected invention. No other claims are currently pending.

The Invention

Appellants' invention pertains to a fishing net "made of acoustically visible material to cetaceans, thereby preventing the incidental capture of cetaceans in the netting" (specification, page 1). As explained in the specification (page 4):

> The inventors have discovered materials which, when incorporated into a monofilament, render the monofilament more acoustically reflective at frequencies used by cetaceans, at least in the 40-230 kHz range. By making the entire net more reflective, the net becomes more visible to cetaceans.

Representative appealed claim 13, a copy of which appears in the appendix to appellants' brief, is directed to a fishing net made of an acoustically reflective monofilament comprising a polymeric matrix, wherein the polymeric matrix is either (1) a thermoplastic resin selected from the group consisting essentially of nylon 6 or nylon 66, and a filler selected from the group consisting essentially of zinc, barium sulfate and iron oxide, or (2) a thermoplastic resin selected from the group consisting essentially of a polyolefin, and a filler selected from the group consisting essentially of zinc and iron oxide.[1]

[1]The term "iron oxide," which was added to claims 13, 18 and 21 by amendment, does not appear in the specification. In order to bring the specification into compliance with 37 CFR

The Applied References

The references applied in the final rejection are:[2]

Sawashita (JP '046) (published Japanese Kokai Patent Application)	60-094046	May 27, 1985
Komatsu et al. (JP '613) (published Japanese Kokai Patent Application)	61-000613	Jan. 6, 1986

The Examiner's Rejection

Claims 13-15, 17, 18 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of JP '046 and JP '613.[3] The examiner's explanation of the rejection is found on pages 4-5 of the supplemental final rejection and is reproduced in its entirety below (with emphasis added):

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§ 1.75(d)(1), it should be amended to provide an antecedent basis for this term.

[2]Our understanding of these Japanese language patent documents is derived from translations prepared on behalf of the Patent and Trademark Office. Copies of the translations are attached to this decision.

[3]Although the answer indicates on page 3 that the rejection is as set forth "in [the] prior Office action, Paper No. 13" (i.e., the supplemental final rejection), the order in which the references are applied in the answer is stated to be "JP '613 in view of JP '046," whereas in the supplemental final rejection it is stated to be "JP '046 A in view of JP '613." The question of which reference is relied upon as the primary reference is of no moment since, in the final analysis, it is the *combined* teachings of the applied references that must be considered under the test set forth in *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). *See also In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 267 (CCPA 1961).

> JP '046 A shows a fishing net made from mixing nylon-6 or nylon-66 with a copper powder having a density greater than 3.0 grams/cc in the range of 3-50 weight percent, heating and extruding to form a fishing net with antifouling properties, corrosion resistance, and wear resistance. JP '046 A and JP '613 do not disclose that the net is acoustic reflective, but since the composition of the net is the same the net would inherently be acoustically reflective. JP '163 patent shows a fishing net made from a polymeric matrix having particles of barium sulfate mixed therein, which has a density of greater than 3.0 grams/cc and comprising 20-500 weight percent barium sulfate and 100 weight percent polyethylene. This is in the range recited for 20-25 weight percent barium sulfate and 100 weight percent polymer. JP '046 also shows the copper being added to the nylon in the range recited. *In reference to claim 13, JP '046 shows all of the elements recited with the exception of the metal or metal oxide recited. JP '046 shows copper. However, it would have been obvious to [provide] JP '046 with barium sulfate as shown by JP '613 since substitution of one high density material for another is contemplated. Also, the material used is deemed to be a matter of design choice absent a showing of criticality. See In re Leshin, 125 USPQ 416 which states [that] the selection of a known material is based on its suitability for the intended use.* JP '046 shows all of the elements recited in claim 16[4] with the exception of the polyethyleneterephthalate. JP '046 uses nylon-66. JP '613 discloses polyethylene. However, it would have been obvious to employ polyethyleneterephthalate since merely the substitution of one thermoplastic for another is contemplated. See the citation to In re Leshin, above. In reference to claim 21, JP '046 discloses copper.

Based on the above, we understand the examiner's theory of obviousness to be founded on the proposition that it would have

[4]Claim 16 has since been canceled.

been obvious to utilize barium sulfate as the high density filler material in JP '046.[5] We do not agree.

Discussion

JP '046 pertains to a low cost material for use in marine applications, such as fishing nets, that prevents the adhesion of shellfish and algae thereto, while at the same time offering a high degree of corrosion resistance, strength, and wear resistance (translation, page 10). JP '046 discloses that this objective can be achieved by mixing a metal powder such as pure copper with nylon 6 or nylon 66 resins (translation, page 11). Although other metal powders such as silver or nickel can be used, copper is preferred (translation, page 14).

JP '613 is directed to synthetic resin filaments having high specific gravity and excellent strength that may be used in marine applications such as fishing nets (translation, page 2). As explained on page 6 of the translation, JP '613 found that when polyethylene is used as the base material with sulfuric acid

[5]Certain statements made by the examiner in the answer in responding to appellants' arguments could perhaps be interpreted as suggesting an alternative theory of obviousness utilizing JP '613 as the starting point of the rejection and providing nylon 6 or nylon 66 as the base material therein. However, no formal presentation of any such alternative theory has been set forth by the examiner, and we decline to speculate as to whether the examiner intended to advance any such alternative theory.

barium[6] as a high density inorganic filler, the mixture can be successfully drawn at high speed to achieve high strength with fewer air spots.

Our main difficulty with the rejection as it was explained in the supplemental final rejection is the lack of any teaching in the applied references that barium sulfate, the preferred filler material of JP '613, has the strong antifouling properties required by JP '046. While we certainly agree with the examiner that JP '046 teaches that barium sulfate is a high density filler material useful for adjusting the specific gravity of a synthetic resin, JP '046 requires that the high density filler material have the ability to prevent the adhering of shellfish and algae to the surface of articles made from the composition. The examiner has not pointed out, and it is not clear to us, where the applied prior art teaches that barium

[6]The Derwent abstract of JP '613 provided by the examiner characterizes the filler material as "barium sulphate with an ave. particle size," while the translation of JP '163 characterizes this same filler material as "sulfuric acid barium having a specific particle diameter" (e.g., page 6, line 10). It would appear that in each instance the material in question is the same as the barium sulfate filler material called for in the claims.

sulfate has this property. Accordingly, we cannot accept the examiner's position that it would have been obvious to utilize barium sulfate as the filler material in JP '046.

We also cannot accept the examiner's position that the use of barium sulfate can be dismissed as an obvious matter of design choice absent a showing of criticality. Criticality is not a requirement of patentability. *See W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1556, 220 USPQ 303, 315 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); *In re Luvisi,* 342 F.2d 102, 108, 144 USPQ 646, 651 (CCPA 1965). With respect to the examiner's rejection, the issue is whether it would have been obvious to use barium sulfate as the filler material *in JP '046.* In that there is no teaching in the applied prior art that barium sulfate possesses the antifouling property required by JP '046, it cannot be said that the applied reference teachings demonstrate that barium sulfate would be suitable for the purposes of JP '046.

In light of the foregoing, the standing rejection of claims 13-15, 17, 18 and 21 is not sustainable.

Remand

This case is remanded to the examiner for consideration of the patentability of the appealed claims in light of the teachings of JP '046 and JP '613 as set forth and explained in the attached translations thereof.

With respect to JP '046, we particularly note the disclosure at page 14, lines 11-13, of the translation that "silver, nickel, copper, *etc.*" (emphasis added) may be used as the filler material in conjunction with the nylon 6 or nylon 66 based material of JP '046. This disclosure appears to suggest that metals other than silver, nickel, and copper may be appropriate for the purposes of JP '046. We also note the disclosure at page 20 of the translation to the effect that fishing nets may be constructed in their entirety of the synthetic resin composition of JP '046.

With respect to JP '613, we particularly note the disclosure at page 3, line 21, through page 4, line 21, that zinc may be used as a filler material in conjunction with a conventional polyolefin base material. We also note that this portion of JP '613 indicates that when compositions having 40 wt% or greater

amount of zinc filler are used in conjunction with a polyolefin type base material, production problems in the form of cracks and air spots result.

The examiner should consider whether any of the pending claims are unpatentable over the teachings of JP '046 and/or JP '613, either alone or in combination with other pertinent prior art of which the examiner may be aware.

Summary

The standing rejection of the appealed claims under 35 U.S.C. § 103 is reversed.

This case is remanded to the examiner for the reasons indicated above.

The decision of the examiner is reversed.

REVERSED AND REMANDED

IRWIN CHARLES COHEN Administrative Patent Judge	)	
LAWRENCE J. STAAB Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

LJS:hh

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